
Chapter III

Affected Environment

Table of Contents

Chapter III Affected Environment	III-1
A. Introduction	III-1
1 How This Chapter is Organized	III-1
2 Summary of Changes from Draft to Final . . .	III-1
B Physical and Biological Setting . . .	III-2
1 The Malheur National Forest . . .	III-2
2 Geology and Topography	III-4
3 Soils .	III-4
4. Climate .	III-5
5 Flora and Fauna	III-6
6 Diversity of Plant and Animal Communities	III-8
7 Old Growth	III-9
8 Research Natural Areas (RNAs)	III-10
9 Natural Changes .	III-11
10 Prehistoric Human Activity .	III-12
11 Historic Activity .	III-13
C Social and Economic Setting	III-15
1 Forest Zone of Influence	III-15
a Communities and Lifestyles	III-15
b Attitudes, Beliefs, and Values	III-16
2 Economic Setting	III-17
a Timber Industry	III-17
b Retail Trade .	III-18
c Livestock Industry .	III-18

d. Government	III-19
e. External Influences	III-19
3. State and County Planning	III-19
D. Management of the Affected Resources	III-21
1. Timber	III-21
a. Land Classification	III-24
b. Pest Management	III-24
c. Regional Timber Demand and Supply Projections	III-31
d. Short-Term and Long-Term Demand Trends	III-31
e. Private and Public Land Interrelationships	III-32
f. Projections for Forest Supply and Demand	III-32
g. Efficiency of Forest Timber Program	III-36
h. Relationship Between Forest Management and Trees	III-38
2. Forage	III-40
a. Land Classification	III-40
b. Livestock Use of Forage	III-40
c. Wild and Free-Roaming Horses	III-41
d. Relationship Between Forest Management and Forage	III-41
3. Wildlife	III-42
a. Special Habitat	III-43
b. Unique Habitat	III-44
c. Threatened, Endangered, and Sensitive Species	III-44
d. Big-Game Habitat	III-47
e. Big Game Range	III-48
f. Other Big Game	III-48
g. Management Indicator Species	III-49
h. Future Projections	III-49

1 Relationship Between Forest Management and Wildlife	III-50
4 Fisheries	III-51
a Relationship Between Forest Management and Fish	III-53
5 Water	III-55
a Stream Classification	III-58
b Riparian Ecosystems	III-58
c Relationship Between Forest Management and Water and Riparian Areas	III-59
6 Recreation	III-62
a Lakes	III-62
b. Wild, Scenic, and Recreation Rivers	III-63
c. Developed Recreation	III-65
d Dispersed Recreation	III-65
e Relationship Between Forest Management and Recreation	III-68
7. Roadless Areas	III-69
a Relationship Between Forest Management and Roadless Areas	III-69
8 Scenery	III-70
a Relationship Between Forest Management and Scenery	III-72
9 Cultural Resources	III-75
a Relationship Between Forest Management and Cultural Resources	III-76
10. Wilderness	III-78
a Strawberry Mountain Wilderness	III-79
b Monument Rock Wilderness	III-83
11 Minerals	III-86
a Relationship Between Forest Management and Minerals	III-91
12 Air Quality	III-93
a. Relationship Between Forest Management and Air Quality	III-94
13 Transportation	III-94

a Trails	III-96
b Railroads	III-97
c Utility Corridors	III-97
d Relationship Between Forest Management and Roads and Trails	III-97

List of Tables

III-1 Available And Suitable Timber Inventory By Species Group (1980)	III-22
III-2 Land Suitability For Timber Production	III-25
III-3 Important Forest Pests Of The Malheur National Forest	III-28
III-4 Timber Stand Conditions, Grant And Harney Counties	III-34
III-5 Projected Potential Timber Harvest, Grant And Harney Counties	III-34
III-6 Projected Demand For National Forest Timber	III-36
III-7 Timber Sale Costs And Receipts	III-37
III-8 Wildlife Use Of Special And Unique Habitats On The Malheur National Forest	III-43
III-9 Threatened, Endangered And Sensitive Animals And Their Habitat	III-46
III-10 Sensitive Plant Species And General Habitat	III-47
III-11 Total Area Of Oregon Department Of Fish And Wildlife Game Management Units (GMU), And Percent Of GMU Area On The Malheur National Forest (MNF)	III-48
III-12 Management Indicator Species	III-50
III-13 Existing Water Rights By Beneficial Use And Subbasin Of The John Day River Basin	III-57
III-14 Some Physical And Biological Characteristics Of Lakes And Reservoirs	III-63
III-15 Anticipated Recreation Demand For Five Decades	III-67
III-16 Area Currently Available, And Area Needed In The Fifth Decade, By Recreation Opportunity Spectrum Class	III-68
III-17 Roadless Areas Of The Malheur National Forest	III-70
III-18 Corridor Viewshed Areas	III-72
III-19 Strawberry Mountain Wilderness Recreation Use	III-84
III-20 Monument Rock Wilderness Recreation Use	III-86
III-21 Total Production Of Minerals From Northeastern Oregon And Malheur National Forest Vicinity	III-87
III-22 Key To Mineralized Areas On The Malheur National Forest	III-88
III-23 Acres Withdrawn From Mineralized Areas	III-91

List of Figures

III-1 Malheur National Forest	III- 3
III-2 Representative Species Of Life Zones On The Malheur National Forest	III- 7
III-3 Forest Successional Stages	III- 9
III-4 Historical Forest Type Changes, Malheur National Forest	III-12
III-5 Historical Harvest (Cut) Volumes, Malheur National Forest	III-13
III-6 Estimated Percent Employment, By Economic Sector, For Grant And Harney Counties	III-18
III-7 Understory Tree Composition By Forest Type	III-23
III-8 Western Spruce Budworm History, Malheur National Forest	III-26
III-9 1988-1989 Bark Beetle Infestations, Malheur National Forest	III-27
III-10 Timber Sale Road Costs	III-38
III-11 Peak Numbers Of Bald Eagles Observed Using Active Winter Roost Sites On A Daily Basis	III-45
III-12 Dispersed Recreation Use By Activity	III-66
III-13 Recreation Use By Recreation Opportunity Spectrum Class	III-67
III-14 Roadless Area Locations	III-71

III-15 Viewshed Corridors	III-73
III-16 Mineralized Areas	III-90
III-17 Areas With Potential For Oil And Gas	III-92
III-18 Road Percentages By Classification, Malheur National Forest	III-96